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**Restrictive Effects of Rate Ceilings on
Consumer Choice: The Massachusetts Experience**

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RESTRICTIVE EFFECTS OF RATE CEILINGS ON CONSUMER CHOICE:

THE MASSACHUSETTS EXPERIENCE

Robert W. Johnson and A. Charlene Sullivan*

Abstract

Beginning in January 1977, Massachusetts provided a convenient laboratory to examine the effects upon consumer finance companies and their customers of low rate ceilings. At that time the Small Loans Regulatory Board reduced rates significantly, especially on loans of less than \$2,200 to \$2,500 (depending upon maturity). On these loans rates permitted licensed lenders in Massachusetts were below those of almost all other states. Using studies of the cost functions of consumer finance companies, we hypothesized that the reduced rates would have three main effects:

- (1) Small loans would become relatively less available than large loans.
- (2) Small finance companies would be more adversely affected than large ones.
- (3) High-risk customers needing small loans would be more adversely affected than low-risk consumers requiring large loans. Further, we anticipated that some identifiable portion of consumers unable to obtain credit at finance companies would be unlikely to be accommodated at commercial banks.

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The empirical evidence from Massachusetts supports the first two hypotheses. Between years-end 1975 and 1979, the number of loans made below \$500 declined by 32 percent, and the large, national finance companies dramatically increased their investment in large second mortgage loans. At the same time the industry structure changed. The number of loan offices fell by 35 percent, with the small, local companies bearing most of the brunt of the decline in loans made and loans outstanding.

The experience in Massachusetts appears to refute the reasons commonly advanced for imposing restrictive rate ceilings on consumer credit. While some of the potential borrowers may have been better off without credit, others rationed out of the market would have managed their debts satisfactorily. Survey evidence suggests that the latter group considerably outnumbers the former. Moreover, consumers denied cash credit may merely turn to retail creditors, who can provide credit to high-risk purchasers by inflating their cash prices. Instead of assuring that consumers would pay a "fair" price for credit, the lowered rate ceilings had the effect of restricting credit by eliminating firms and offices from the market. By curtailing supply, the rate order decreased the likelihood that consumers would pay a fair price. Finally, the assertion that small companies deserved to be expunged from the market because they were inefficient is not warranted. Evidence shows that small firms do not realize economies of scale. Rate ceilings that do not accommodate their cost structures will ultimately leave only large firms in the market, with resulting anti-competitive effects for consumers.

The remaining issue is whether consumers who were unable to obtain credit from finance companies could turn to other sources for loans, particularly commercial banks. By analyzing data from a national survey of consumers, we were able to identify two distinct classes of customers: those who borrowed only from banks and those who borrowed only from finance companies. When measures of credit risk were analyzed for these two groups, borrowers from finance companies appeared to be significantly more risky than those borrowing from commercial banks, although there was evident overlap in their credit scores. Finance company customers with low credit scores seemed unlikely to be able to obtain loans from commercial banks, if finance company credit were curtailed by low rate ceilings. In comparison to bank borrowers, finance company customers who would be excluded from the legal cash loan market were more likely to be black; to rent rather than own their residence; to have lower incomes, lower total assets, and less education. They were more likely to be concerned about the size of their monthly payments and less likely to view the annual percentage rate as an important term in their credit agreements.

Some would argue that these consumers should be "protected out" of the cash loan market for their own interests. Nonetheless, they are people who have, in their judgment, a need for credit. In our value system, we find it repugnant to restrict their freedom of choice among credit sources by imposing prohibitive rate ceilings.

RESTRICTIVE EFFECTS OF RATE CEILINGS ON CONSUMER CHOICE:

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The purpose of this paper is to analyze the effects upon consumers of the existing rate ceiling on regulated small loans in the Commonwealth of Massachusetts. Considerable attention has been given to the effects of the rate ceilings upon consumer finance companies. But whatever effects rate ceilings may have upon the lenders of Massachusetts, those effects are ultimately transferred to the citizens of the Commonwealth.

Following a brief review of rate ceilings on regulated loans in Massachusetts and the reasons advanced for rate regulation, the main body of our discussion is divided into two parts. The first part will examine the effects of rate ceilings on availability of credit to consumers, especially a ceiling that is as much below rates for comparable loans in other states as that in Massachusetts. We will see how the level and structure of the rate ceiling has affected the amounts and sizes of loans available to customers of Massachusetts consumer finance companies from the end of 1975 to the end of 1979.

But we would also like to know what kinds of consumers are affected by these rate ceilings. If finance companies leave the market, are their customers likely to find their credit demands satisfied by other Massachusetts lenders? Because of membership requirements of credit unions, we focus on the probability that finance company customers could be served by commercial banks. Analysis of data collected in a national

survey of consumers shows the type of consumer typically served by finance companies in the United States. Evidence indicates that a portion of these borrowers could not obtain credit from commercial banks. To deny them access to credit from finance companies may be to deny them cash credit from legal lenders.

Background

Effective January 2, 1977, the Small Loans Regulatory Board of the Commonwealth of Massachusetts fixed the maximum rate of charge on loans of \$3,000 or less at 18 percent, plus an initial administration fee of \$15, not to be charged more than once in a 12-month period upon renewal or refinancing. The administration fee has the greatest impact on the annual percentage rate (APR) on small, short-term loans. At year-end 1979, there were 12 states with APRs lower than those permitted in Massachusetts on \$500, 6-month loans. However, these loans are atypical. On more typical \$1,000, 12-month loans, there were only two states--Wisconsin and Texas--with APRs below the 20.62 percent rate permitted in Massachusetts. (The small loan rate in California was lower, but not the rate permitted personal property brokers.) No state in 1979 had a lower APR on \$1,000, 24-month, or 36-month loans. These comparisons exclude Arkansas and the District of Columbia, which have no consumer finance companies.

The new regulation significantly reduced APRs permitted in Massachusetts, as illustrated in the table shown below, taken from [8] for 1976 and 1980:

<u>Maturity (mos.)</u>	<u>Size</u>	<u>Permitted APR</u>	
		<u>1976</u>	<u>1979</u>
12	\$500	27.58	23.21
12	\$750	25.37	21.48
12	\$1,000	25.39	20.62
12	\$2,000	20.08	19.31
24	\$2,000	20.00	18.64
24	\$3,000	16.94	18.43
36	\$3,000	16.79	18.27

The purpose of the remaining analysis is to measure and evaluate the effects on customers of Massachusetts consumer finance companies of this change in the permitted rate structure on loans of \$3,000 or less. In this analysis it is relevant to note that lenders in Massachusetts may charge 18 percent per annum on second mortgage loans exceeding \$1,500.

Reasons Given for Rate Ceilings

The United States is unique among the industrial nations of the world in the panoply of rate ceilings that are applied to consumer credit. Whereas price ceilings have been scrupulously avoided on most consumer goods and services (except those furnished by public utilities), it is a common practice among the states to limit the prices that may be charged for the use of consumer credit. The reasons advanced for such regulation typically center on a need to prevent consumers from becoming "overburdened" with debt, to assure that consumers pay a "fair" price for credit, and (in the case of Massachusetts) to treat lenders as quasi-public utilities. Let us summarize briefly each of these justifications for rate ceilings so that they can be tested against the experience with reduced rate ceilings in Massachusetts.

To Avoid Overburdening Consumers with Debts

With respect to consumer credit, a "fundamental proposition of economic theory is that under perfect competition and monopolistic competition, a ceiling on price will inevitably lead to supply curtailments and rejections of demand if the ceiling is pressed low enough" [12, p.1365]. The rejections of demand that result from low rate ceilings is regarded by some as a benefit to society. Thus, the argument made by Wallace for low rate ceilings is based upon the assertion that, by being denied credit, the debtor family is protected "from a threat to stability and psychic harm" [16, p.475]. A "large group of high risk debtors" need to be protected in this manner because they "fail to comprehend their own degree of risk." A second class of debtors needs to be denied credit because they are "simply not competent to run their own affairs" [15, p.476]. In Wallace's judgment the gains to these two groups more than offset the losses to a third group of consumers, who could have managed their debts, but who are denied access to credit as a result of the supply curtailments produced by low rate ceilings.

To Assure that Consumers Pay a "Fair" Price for Credit

While there is no generally acceptable standard for determining whether consumers are paying "fair" rates, the concept of equitable rates generally relates to whether the price of credit is reasonable in relation to the cost of supplying it. Concerns that consumers may pay "too high" a price for credit usually stem from the belief that creditors have excessive market power in relation to consumers. It is argued that in such cases creditors will charge the ceiling rate.¹ For example, Fritz asserts that in "most fields of consumer credit,

with the exception of new car financing, creditors charge the maximum allowable rate, or close to it" [11, p.512]. From this line of argument it follows that to curb the abuse of excessive market power, rate ceilings are necessary, presumably ceilings lower than would otherwise be set by the market.

To Administer Credit Grantors As Public Utilities

Massachusetts is fairly unique among the states in applying a quasi-public utility approach to setting rates that may be charged by lenders. The Small Loans Regulatory Board is charged by Massachusetts statute to determine rates on loans of \$3,000 or less ("regulated loans") that will provide enough capital to "make available adequate credit facilities to individuals seeking such loans at reasonable rates."² The terms "adequate" and "reasonable" are undefined. The intervenors in the 1976 rate hearings in Massachusetts argued that the "Board's duty is not to support the industry; rather it is to serve the public by satisfying a need. If the need is satisfied elsewhere or is slaked, there is no obligation to raise rates and attempt to maintain the industry" [6, p.3].

The intervenors further argued that the unprofitability of finance companies could be attributed, not to low rate ceilings, but to lack of growth opportunities in Massachusetts and inefficient management. Since finance companies had no prospects for growth, "the return to small loan companies need be only sufficient to retain present capital, [whereas] utilities must have sufficient return to attract substantial equity capital willing to invest in expensive and risky assets" [6, p.12].

Effects on Consumers of Lowered Rate Ceilings

Except for rare six-month loans, the Small Loans Regulatory Board lowered the rate ceiling on regulated small loans of less than \$2,200 (12-month) to \$2,400 (36-month). We expect that this change affected the consumer finance companies in Massachusetts and their customers. The purpose of this section is, first, to develop hypotheses concerning the probable effects of the lowered rate ceilings and, second, to test those hypotheses using empirical data from Massachusetts. At the conclusion we shall use the experience in Massachusetts to examine the validity of the reasons advanced for the imposition of rate ceilings on consumer loans.

The Credit Offer Function

At the outset, we should recognize that the rate of charge is only one feature of a loan and that it may not be the feature of greatest interest to many consumers. Other aspects of the loan are the maturity, the security required, the flexibility of payments, the convenience of the lender's office, collection procedures, the willingness of the creditor to extend payments or renegotiate a loan contract, delinquency charges, and so on. For example, in a national survey of consumers in mid-1977 by the Survey Research Center of the University of Michigan, consumers were asked to list the three credit terms they viewed as most important in purchasing an automobile [9, p.21]. "Size of payment" was mentioned most frequently, with the dollar amount of the finance charge and the annual percentage rate falling into second and third place. Asked why they chose a particular type of creditor, about one-third of the consumers gave low interest rate or low finance charges as a reason.

Asked why they chose a particular creditor from within a class, more than half of the respondents (53.6 percent) mentioned familiarity or previous good experience [9, p.21].

The terms of a credit contract are intimately related. Thus, a creditor who is permitted to charge only a very low rate of interest may be forced to shorten maturities (thereby raising monthly payments) or to close offices (thereby providing less convenient service to consumers). Because of the interaction of credit terms, what a consumer may appear to "gain" from a required change in one term, may be lost as a result of a reactive change in another term.

The Cost Function

To develop hypotheses concerning the likely effects of the lowered rate ceilings in Massachusetts, we need to understand the structure of the costs of providing credit. Two questions are addressed. First, how do costs vary according to the size of loan? Second, how do costs vary according to size of firm or size of office?

Costs in relation to size of loan. The consumer finance industry is characterized by relatively high fixed costs; that is, it costs about as much to acquire and terminate a \$3,000 loan as a \$300 loan. It costs about the same to record a \$250 payment as a \$25 payment. The chief variable cost is the cost of funds, which varies directly with the size and maturity of loan. In his extensive analysis of the costs to consumer finance companies of extending consumer credit, Benston [3, p.150] concluded that "there is no meaningful relationship between size of loan and costs, particularly for loans of less than \$1,000."

Because costs do not vary with the size of loan, total costs are higher, relative to amounts financed, for small loans than for large loans. Thus, if rate ceilings are to parallel costs of providing credit, they will slope upward as the size of loan decreases. In his analysis Benston [3, p.154] concluded that to cover operating costs, credit losses, and costs of capital "the ceiling rate would have to be 86 percent on the first \$100, and 13 percent on amounts over \$100. Actually, it would be far better to state the rates in two parts: \$73 to service a loan for a year plus 13 percent per dollar loaned."

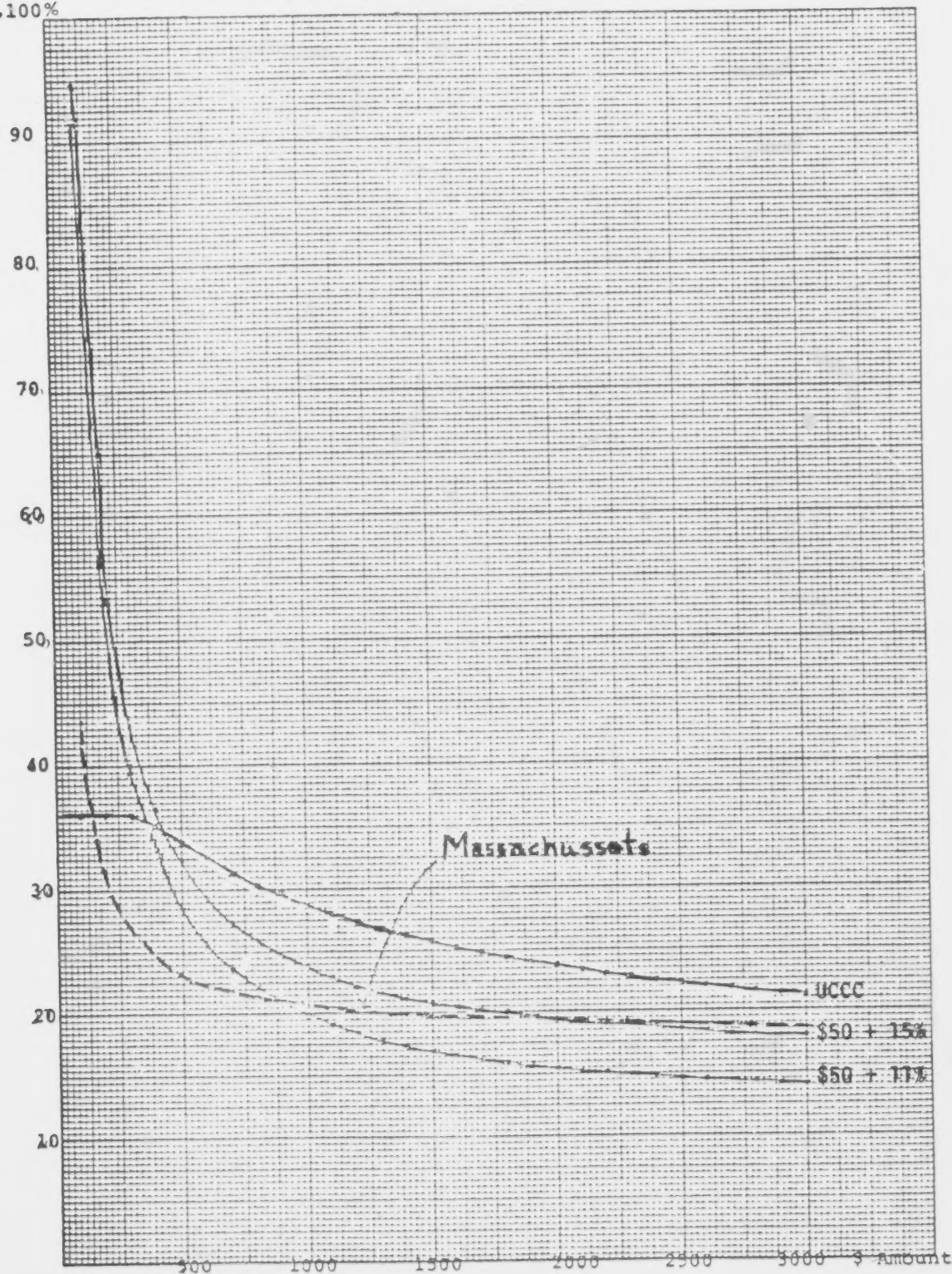
The staff of the National Commission on Consumer Finance (NCCF) [13, p.141] estimated in 1972 the actual costs of loans of \$3,000 and less, given costs of funds of 11 percent and 15 percent as shown in Exhibit 1. Since the prime rate charged by banks in the latter part of 1972, when the costs of funds were calculated, was 5 3/4 percent, the 15 percent rate shown in Exhibit 1 would be a minimum cost of funds today. From the exhibit it can be seen that even minimum lending costs exceed the rates of return allowed Massachusetts finance companies on loans of less than \$2,100.

Economies of scale. Benston also studied economies of scale in the consumer finance industry. While he found that large companies were more profitable than small ones, he attributed these results primarily to the small size of office operating by the smaller firms [3, pp.58ff. and pp.92ff.]. Thus, "a doubling of size is associated with a 13 to 17 percent increase in net income per \$100 of assets and a 15 to 22 percent increase in net income per \$100 of equity" [3, p.151].

Exhibit 1

APR's Required to Recover Total Estimated Costs by Size of Loan Compared to
UCCC Proposed Rate Ceiling Structure.

APR, 100%



Notes to Exhibit 1

The line marked "UCCC" represents the maximum rates permitted in the Uniform Consumer Credit Code (1974). At that time a rate of 36 percent per annum applied to unpaid balances of \$300 or less; 21 percent per annum to that part of the unpaid balances exceeding \$300 x to \$1,000; and 15 percent on that part of the unpaid balance over \$1,000. Under section 1.106 of the UCCC the dollar amounts at which the rates change are adjusted upward to reflect changes in the Consumer Price Index. Thus, in several states that have adopted the UCCC the maximum rates are higher than shown in the chart. In no case, however, may the maximum rate exceed 36 percent per annum.

Source: National Commission on Consumer Finance, Consumer Credit in the United States. Washington, D.C.: U.S. Government Printing Office, 1972, p.144.

Hypotheses

Given the credit offer functions and the cost functions characteristic of consumer finance companies, we expect the change in rate ceilings in Massachusetts in 1977 to have had the following effects:

(1) As indicated in the initial background section, rates on loans above \$2,200 - \$2,500 were increased slightly, while rates on smaller loans were reduced. In essence, the slope of the rate structure was made less "steep" after 1976. Consequently, we would expect small loans to have become relatively less available than large loans.

(2) Because small companies operate small offices, which do not realize economies of scale, we would expect small consumer finance companies to have been more adversely affected by the reduction in rate ceilings than large firms.

(3) It follows from the above that we would expect consumers needing small loans, particularly from small finance companies, to have been more adversely affected by the change than consumers wishing to borrow large amounts from large finance companies, who characteristically have large offices. At a later point in this analysis we shall seek to determine whether these consumers might be expected to obtain loans from commercial banks if their access to loans from consumer finance companies is reduced.

Empirical Evidence

Between years-end 1975 and 1979, the outstanding gross amount of regulated loans (\$3,000 or less) in Massachusetts fell by 12.5 percent, from \$219.5 million to \$192.0 million [1]. Since the consumer price index increased by 38 percent over this same period of time, outstanding

regulated loans actually decreased by 37 percent in terms of real dollars. To undertake a more detailed study of the differential effects of the low rate ceiling, we obtained a sample of the individual reports of 20 of the 27 finance companies operating in 1979 and compared their loans outstanding for 1975 and 1979. These firms had about 95 percent of the total outstanding regulated loans held by licensed lenders at year-end 1979. They were somewhat more successful than the total population of finance companies, since their outstandings in regulated loans rose by three percent.

Effect on size of loans made. The expected effect of the reduced rate ceiling on the size of loan made by finance companies in Massachusetts is amply documented by a comparison of the 1975 and 1979 annual reports of the 20 finance companies surveyed. Since data relate to the number of regulated loans made, rather than outstanding, they reveal current lending practices. In contrast, outstandings reflect past as well as current practices.

Between 1975 and 1979, the number of regulated loans made rose by only one percent (Exhibit 2). However, the numbers and amounts of loans made below \$500 decreased, in part because these loans had become uneconomical to make and in part because inflation had increased the dollar amount of loans sought by consumers. With the concentration on larger loans, the total amount of loans extended rose, but not by much--only by five percent. Over the four-year period the number of loans made between \$1,000 and \$3,000 rose from 49.5 percent of the total to 53.6 percent of the total number made.

EXHIBIT 2

THE SHIFT FROM SMALL TO LARGE LOANS IN THE REGULATED LOAN BUSINESS:

LOANS MADE DURING 1975 AND 1979

<u>Size of loan (\$)</u>	<u>A. Numbers of Loans</u>		<u>Change (%)</u>
	<u>1975</u>	<u>1979</u>	
Less than 100	635	377	-41
100.01-200	3,593	1,267	-65
200.01-300	7,197	3,705	-49
300.01-400	6,905	6,991	1
400.01-500	6,215	4,438	-29
500.01-600	8,685	10,823	25
600.01-1,000	17,212	19,223	12
1,000.01-1,500	16,146	18,740	16
1,500.01-3,000	33,372	35,392	6
Totals	99,960	100,956	1

<u>B. Amounts of Loans (-000)</u>			
Less than 100	\$ 50	\$ 33	-34
100.01-200	524	200	-62
200.01-300	1,709	908	-47
300.01-400	2,319	2,322	*
400.01-500	2,740	1,977	-28
500.01-600	4,677	5,816	24
600.01-1,000	13,228	15,069	14
1,000.01-1,500	19,332	22,438	16
1,500.01-3,000	76,723	78,644	3
Totals	\$121,302	\$127,407	5

* Less than one-half of one percent

The shift from small to large loans was especially pronounced among small, local finance companies. The number of regulated loans that they made fell by 19 percent from 1975 to 1979 (Exhibit 3). The decrease in numbers of loans made was much greater for small loans than for large loans. Indeed, the only category in which the number of loans made increased over the four-year period was for loans ranging above \$1,500 up to \$3,000. Obviously, less prosperous consumers who needed--and could afford--only small loans were progressively excised from this portion of the legal cash loan market during this period of time.

Effect on industry structure. From years-end 1975 to 1979, the number of small loan licenses in Massachusetts fell from 266 to 172. (One license is required for each office.) As expected, small, local companies were more adversely affected by the low rate ceiling than the national chains of consumer finance companies. The gross receivables in the regulated loan business of the ten small firms surveyed contracted by 18 percent, while their outstanding receivables in the "other finance business" rose only two percent. On balance, their outstandings shrunk by five percent (Exhibit 4). In sharp contrast, the national chains increased their outstandings in the regulated loan business only slightly, while doubling their loans in the "other finance business," mainly second mortgages. In total, their outstandings rose by 40 percent.

The adverse effect of the lowered rate ceiling is also reflected in the numbers of customers served. There was essentially no change in the number of consumers served by the 20 companies providing data for 1975 and 1979. The number of consumers with small loans outstanding at the ten local finance companies fell by 23 percent, while the ten large

EXHIBIT 3

THE SHIFT FROM SMALL TO LARGE LOANS BY SMALL, LOCAL COMPANIES,*

NUMBERS OF LOANS MADE, 1975 AND 1979

<u>Size of loan (\$)</u>	<u>1975</u>	<u>1979</u>	<u>Change (%)</u>
Less than 100	14	6	-57
100.01-200	192	71	-63
200.01-300	296	139	-53
300.01-400	292	191	-35
400.01-500	233	183	-21
500.01-600	341	279	-18
600.01-1,000	712	551	-23
1,000.01-1,500	562	534	-5
1,500.01-3,000	533	609	14
Totals	3,175	2,563	-19

* Total receivables less than \$3 million, year-end 1979.

EXHIBIT 4

THE SHIFT OUT OF THE REGULATED LOAN BUSINESS OF

\$3,000 OR LESS, 1975-1979

(Dollar amounts in thousands)

	1975	1979	Change
Gross receivables: (20 firms)			
Regulated loan business	\$178,054	\$183,970	3%
Other finance business	<u>45,084</u>	<u>124,931</u>	<u>177%</u>
Totals	\$223,138	\$308,901	38%
Small, local companies* (10 firms)			
Regulated loan business	\$ 3,307	\$ 2,727	-18%
Other finance business	<u>6,023</u>	<u>6,167</u>	<u>2%</u>
Totals	\$ 9,330	\$ 8,894	-5%
Large, national chains (10 firms)			
Regulated loan business	\$174,747	\$181,243	4%
Other finance business	<u>39,061</u>	<u>118,764</u>	<u>204%</u>
Totals	\$213,808	\$300,007	40%

* Total gross receivables less than \$3 million, year-end 1979.

national chains increased the numbers of customers they served by one percent. Since the national firms served many more borrowers, their small percentage increase offset the large percentage decrease of the local companies in absolute numbers of customers served.

Reappraisal of Reasons for Rate Ceilings

Does the evidence provided by the case study of Massachusetts support the reasons typically advanced for the imposition of rate ceilings--especially low rate ceilings? Let us examine these data in conjunction with other research on the issue.

Avoid overburdening consumers with debt. The evidence suggests that a number of potential borrowers, especially those seeking small loans, were "protected out" of the market between 1977 and 1979. The number of regulated loans rose hardly at all, and the number of loans made below \$500 fell dramatically. Can we conclude that the borrowers who did not obtain loans from consumer finance companies were better off as a result?

Consumers denied credit by consumer finance companies are likely to be more risky than those granted credit. But that does not mean that they would have defaulted on their loans and thereby been subject to "a threat to stability and psychic harm" [16, p.474]. Studies of debtors with difficulties related to managing their debts suggest that the problem is relatively small. In the aggregate, only a small proportion of consumers appear to have difficulties with their debts. In his survey of 903 debtors who were making instalment payments, Caplovitz [7, p.2-38] found that only seven percent "admitted to some credit trouble in the past." But let us focus on the high-risk potential

borrowers whose demands for credit are likely to be curtailed by low rate ceilings. In a parallel study [7, p.2-38] of 1,330 consumers who were in default on their debts, Caplovitz found that even within this group, 60 percent reported that "their current trouble was a new experience." Among the debtors who had experienced previous credit problems the reasons for default were many and varied. Default was not solely a product of financial incompetency. Thus, low rate ceilings have the effect of denying credit to a majority of high-risk consumers who can manage their debts satisfactorily in order to limit credit availability to a minority who can not do so.

Furthermore, low rate ceilings do not prevent high-risk consumers from obtaining credit. If a consumer who wants to borrow cash to buy a color TV is rejected by lenders because of a low rate ceiling, he or she can still obtain credit from credit retailers. Usually located in the inner city, these retailers make most of their sales on credit to high-risk consumers. Because the rates that they are legally permitted to charge are not sufficient to warrant the credit risks that they assume, they raise their "cash" prices to offset their high costs of collection and bad debts. In essence, they transfer part of the finance charge into the cash price. They may even offer "free" credit by sufficiently inflating the cash price of the TV set.

As an illustration, a study by the Federal Trade Commission [10, p.14] in the District of Columbia showed that the average retail price charged by low-income market retailers on a TV set was 43 percent higher than at general market appliance stores. Similar "padding" of the retail price amounted to 53 percent for refrigerators, washing

machines, and sewing machines. It is difficult to see how high-risk consumers are protected by being denied the wide shopping choices provided by cash credit and being, instead, relegated to credit retailers.

Assure that consumers pay a "fair" price. No rate ceiling can assure that each consumer pays a "fair" price for a particular credit offer function. Implicit in the concept of a fair price or fair rate is the notion that it is related to the cost of providing the good or service. Thus, fair prices will be found in a competitive marketplace, where lenders compete to serve consumers and where consumers shop for credit.

However, the effect of low rate ceilings is to reduce the level of competition, thereby lowering the probability that consumers will pay a fair price for their credit. A senior staff economist for the NCCF observed with respect to finance companies: "... in high ceiling states competition clearly enhances supply performance" [12, p.1381]. In Massachusetts low rate ceilings clearly did not enhance supply performance. We have noted that over the four-year period from years-end 1975 to 1979, the number of small loan licensees fell to 172 from 266. Also, the number of loans made below \$500 declined by 32 percent. Thus, consumers in Massachusetts, especially those needing small loans, were less likely to pay a fair price for their desired credit offer function in 1979 than in 1977.

Administer credit grantors as public utilities. In their 1976 brief supporting lower rate ceilings, the intervenors [6, p.4] argued that much of the blame for the profit squeeze on small firms was "not associated with present rate ceilings, but rather with business

management inefficiencies, competition from lower-rate lenders and the evolution of the industry from growth to maturity." Further, it was asserted that an increase in rate ceilings would "artificially sustain inefficiencies by permitting the companies to attempt to pass along to consumers the costs of their inefficiency" [6, p.9].

The results of lowering the rate ceiling in 1977 was, by extension of the intervenors' argument, to make the small companies even less efficient. Their losses increased, their outstandings fell five percent, and many closed or merged offices. In contrast, the national chains increased their outstandings in the regulated loan business only slightly, while doubling their loans in the "other finance business," mainly second mortgages.

An understanding of the economies of scale of large versus small consumer finance companies would have led one to anticipate the result of lowered rate ceilings in Massachusetts. Contrary to the intervenors' implicit assumptions, there is surely no incentive for management of small finance companies to be inefficient, "since the amounts they fail to save are lost by their owners" [4, p.1192]. Instead of attributing their losses to inefficiency, we assign their poor performance relative to large firms primarily to their small scale. A public utility approach to rate regulation in the consumer finance industry would have to allow for the fact "that costs vary from company to company and over time... [but] it is almost impossible for a state regulatory agency to estimate these costs with any accuracy" [4, p. 1194]. Failure to allow for the cost differences among firms in the 1976 rate order in Massachusetts produced the anticipated adverse results for small, local finance companies.

As we have seen, the effect of the intervenors' approach to setting rate ceilings in Massachusetts was to decrease significantly the availability to consumers of regulated loans, especially small ones. At issue is whether the consumers unable to obtain credit from finance companies can turn to other sources for loans, in particular, to commercial banks. The intervenors in Massachusetts argued that "there proves to be no significant differences between customers of banks and finance companies" [6, p.9]. The validity of this argument is examined in the following section.³

Characteristics of Consumer Finance Company Customers

It might be argued that the demise of finance companies would not harm consumers, because they could simply borrow from commercial banks. This section will examine the characteristics of consumer finance company customers using data from the national survey performed in 1977 by the Survey Research Center of the University of Michigan. Denied finance company credit, they are most likely to turn, not to commercial banks, but to credit retailers or illegal lenders to acquire the goods and services that they desire.⁴

One would ask why the analysis is not based on a survey of Massachusetts finance company customers. That would not have been an appropriate research design to discover differences in commercial bank and finance company customers for several reasons. First, because the rate ceilings for state banks and finance companies in Massachusetts are low and identical, we would expect to find that after some years there would be little difference between the customers of the two types of creditors. Finance companies would be forced to compete

for the higher quality customer as rate ceilings restricted their ability to serve at a profit customers who are less creditworthy or who seek relatively small amounts of credit.

Second, we would like to limit our attention to the customers of local finance companies, because in a low-rate state like Massachusetts the national finance companies tend to restrict service to customers who are eligible for commercial bank credit. In personal interviews with managers of local finance companies and branches of national finance companies, the managers of the local firms indicated that many of their new applicants had been turned down by banks. Conversely, some national chain managers indicated that their primary source of new business was their current customer file and that they could not risk lending to a customer who had been turned down by a bank. However, local finance companies in the state have acquired very few new customers in the past few years because of the effects of the rate ceilings. Consequently, the sample base of new customers would be too small for valid analysis.

A Unique Customer Base For Finance Companies

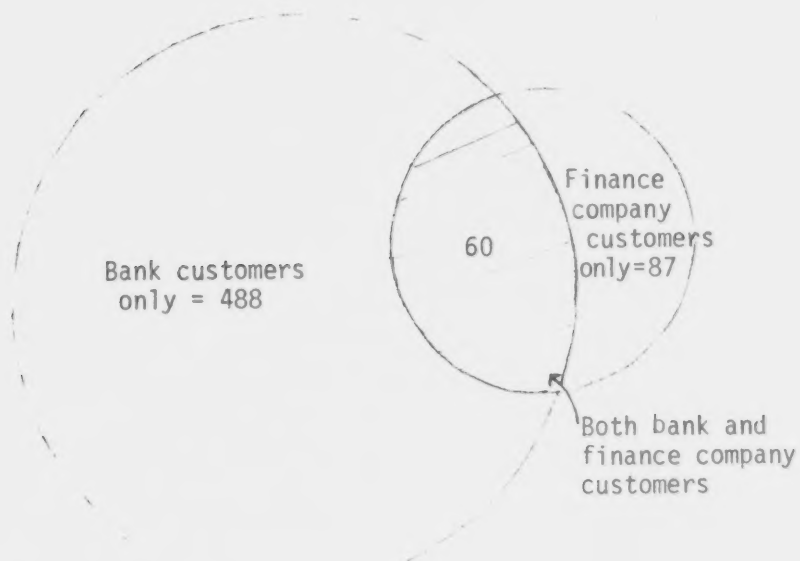
As was indicated before, there are many characteristics of lenders and loan contracts that a consumer considers when shopping for a loan. In some instances, the borrower will have a choice between a commercial bank, a finance company or some other lender. In those cases, the decision could be made on the basis of satisfaction with past experience, finance charge, size of monthly payment or convenience of office location. However, in other cases a borrower seeking a legal loan has little choice and is forced to go to a legal lender of last resort, which is typically a finance company. Consequently, we would

not expect to find that all finance company customers are uniquely different from commercial bank customers. However, a portion of finance company customers are expected to have significantly different demographic, risk and attitude characteristics than bank customers.⁵

For the following analysis, two groups of respondents to the national survey were identified: (1) those who had a direct, closed-end, non-mortgage instalment loan(s) from a commercial bank but not from a finance company; and (2) those who had a similar direct loan(s) from a finance company, but not from a commercial bank. Of the total of some 2,600 respondents to the survey 19 percent (488) were classified as solely bank customers by the above segmentation and about three percent (87) were classified as solely finance company customers. Those customers who currently had loans from both finance companies and banks were not included in the analysis.⁶ (See Exhibit 5).

We hypothesized that the two groups of customers would differ most significantly in terms of risk characteristics, and attitudes toward the relative importance of terms of credit contracts. The first step in our analysis was to analyze the differences in means across the two groups of a set of variables representing demographic characteristics and attitudes related to the relative importance of different terms of a credit contract. A complete description of all the variables analyzed is provided in Appendix A. Some of the variables were continuous. However, most were categorical and were analyzed as a series of dummy variables. Therefore, rather than have one age variable, there were several age variables that took on a value of one when the respondent's age fell into a certain range.

EXHIBIT 5
GROUP SEGMENTATION OF SAMPLE



Shaded area represents those customers who have loans from both finance companies and banks. $N = 60$

Bank customers only = $548 - 60 = 488$

Finance company customers only $147 - 60 = 87$

Exhibit 6 presents the results of the analysis of the difference in variable means across the two groups. The right-hand column presents t-statistics, most of which indicate the significance of differences in proportions. The t-statistics were calculated on the assumption that for a relatively large number of observations a binomial distribution can be approximated by a normal distribution. Those variables that are starred (*) had significantly different means across the two groups at the .01 level of confidence.

Variables that had significant mean differences across the two groups were those related to income (Mincome), total assets (Tasset), monthly debt burden relative to income (Pmtinc), education (ED9, ED10), home ownership (Ownrnt3), black or non-black (Race2), ownership of a checking account at a bank (Chkacct), and attitude toward the relative importance of the annual percentage rate (Intrnk0).

Bank customers had higher average monthly income and total assets than finance company customers but owed less in debt payments relative to income each month. The race variable indicates that 26 percent of only finance company customers were black compared to five percent of only bank customers. Only 74 percent of finance company customers had a checking account compared to 94 percent of bank customers. Thirty-six percent of finance company customers rented their principal residence compared to 20 percent of bank customers. The education variables reveal that bank customers were more highly educated than finance company customers.

EXHIBIT 6
VARIABLE MEANS

<u>Variable</u>	<u>Bank Customers</u> N = 488	<u>Finance Company Customers</u> N = 87	<u>t-statistic</u>
Mincome (\$)	1575	1219	4.46*
Tasset (\$)	6869	2075	3.11*
Assdum	.23	.13	2.54
Pmtinc	.04	.08	2.95*
ED 1	.07	.16	-2.21
ED 2	.02	.05	-1.09
ED 3	.08	.16	-1.95
ED 4	.04	.07	-.97
ED 6	.16	.16	-.03
ED 7	.20	.17	.64
ED 8	.02	.01	.68
ED 9	.14	.05	3.40*
ED 10	.07	.01	3.57*
Sex	.22	.30	-1.51
Ownrnt 3	.20	.36	-2.84*
Race 2	.05	.26	-4.43*
Race 3	.02	.05	-1.09
Chkacct	.94	.74	4.20*
Lnthres (yrs)	12.24	14.51	1.28
NOHH (#)	3.30	3.74	1.38
Age 24	.13	.14	-.22
Age 34	.29	.28	.29
Age 44	.20	.31	2.06
Age 54	.19	.10	2.33
Age 64	.15	.14	.29
Age 74	.03	.03	-.18
Intrnk 0	.35	.52	-2.87*
Intrnk 2	.24	.20	.95
Intrnk 3	.17	.15	.49
Intrnk 4	.02	.01	.68
Pmtrnk 0	.24	.15	2.10
Pmtrnk 2	.27	.22	1.07
Pmtrnk 3	.18	.23	-1.49
Pmtrnk 4	.01	.01	-.10

*Significant at .01 level of confidence, two-tailed test.

When asked to indicate how important interest rate was in a loan contract (Intrnk 0), 52 percent of finance company customers did not rank interest rate among the first four important contract terms, compared to only 35 percent of bank customers. Conversely, 22 percent of bank customers ranked interest rate as the most important term of a loan contract compared to only 12 percent of finance company customers. When the respondents were asked to indicate how important size of monthly payment was relative to other contract terms, (Pntrnk 0) 24 percent of bank customers did not rank the size of monthly payment as the first, second, third or fourth most important term, compared to only 15 percent of finance company customers. The mirror image of those variables reveals that 39 percent of finance company customers thought that the size of monthly payment was the most important term compared to only 30 percent of bank customers.

This analysis suggests that borrowers who are finance company customers, but not bank customers, are demographically different from bank borrowers who are not finance company customers. These differences suggest a risk segmentation between the two financial intermediaries. Consistent with this are the differences in debt burden relative to income and ownership of a checking account. However, finance company customers also have different attitudes toward the relative importance of contract terms than bank customers.

A More Risky Body of Customers

It could be argued that finance company consumers were not commercial bank customers only because of ignorance, fear, or/and distrust of banks. The previous examination of the distinguishing characteristics of the

two groups suggests that this is not the case. Several of the key characteristics are also those associated with levels of risk on standard credit-scoring systems; income level, level of education, rent v. own, and possession of checking account. However, to provide a further test of the proposition that these finance company customers would be unlikely to receive bank credit, we applied the scoring system of a large, national commercial bank to the bank and finance company customers. There was not a significant difference between the average credit score of the finance company customers and the average credit score of the bank customers. However, the distributions of credit scores across the two groups were significantly different. The majority of the finance company customers clustered on the lower end of the score continuum while the bank customers were distributed somewhat evenly over the continuum. The distribution of the credit scores suggests the percentages of bank and finance company customers that would not be able to get credit from banks at various cutoff scores. One can see that a cutoff score of 140, where 5.7 percent of bank customers would be denied credit, 34.5 percent of finance company customers would be denied credit (Exhibit 7).

Conclusion

On the basis of personal interviews with local and independent finance company managers, we concluded that the credit needs of those customers who would be rejected by banks in Massachusetts would most likely be met by independent local finance companies. Our analysis of the characteristics of borrowers from banks and finance companies indicates the nature of the finance company customers who would be

EXHIBIT 7
DISTRIBUTION OF CREDIT SCORES

Credit score	<140	140-170	170-183	183-200	201-253	Total
Bank customers	28	192	103	76	89	488
	5.7%	39.3%	21.1%	15.6%	18.2%	100%
Finance company customers	30	43	9	4	1	87
	34.5%	49.4%	10.3%	4.6%	1.1%	100%

$$\chi^2 = 86.88^*$$

	Bank Customers	Finance Company Customers
Mean	175.55	150.33
Standard deviation	24.60	20.97
Maximum	249.00	208.00
Minimum	111.00	82.00

Difference in means test $t = .01$

* Significant at .01 level of confidence

denied credit at banks were finance companies to be driven from the market for regulated loans. In comparison to consumers who might be served by banks if they were denied access to finance companies by government regulation, the consumers excluded from the legal cash loan market are more likely to be black; to rent, rather than own their residence; to have lower incomes, lower total assets, and less education. They were less likely to have a checking account and thus an established relationship with a bank. In terms of attitudes towards credit, they were more likely to be concerned about the size of the monthly payment and less likely to view the annual percentage rate as the most important contract term.

While it may be argued that these consumers make up a small percentage of the total market served by finance companies, they are people who have, in their judgment, a need for credit. Many may be creditworthy in the sense that they would meet their monthly payment obligations. We recognize that it is a social, rather than an economic judgment to deny consumers in this lower socio-economic class access to legal cash credit. In our value system, we find it repugnant to restrict their freedom of choice among credit sources by imposing prohibitive rate ceilings.

FOOTNOTES

¹Even a monopolist would not necessarily charge a ceiling rate if that rate exceeds the price at which his marginal costs equal his marginal revenue.

²G.L.C. 140, §100.

³Even if all consumers unable to borrow from finance companies could obtain loans from commercial banks at lower rates than from finance companies, they may not be "better off" to patronize banks. The rate is only one aspect of the credit offer function. Also to be considered are the borrowers' time, travel costs, and the value he or she places on the other features of the credit offer function. In a consumer's view a bank loan at 15 percent may be less desirable than a loan from a local finance company at 20 percent. However, this judgment by a consumer may be viewed as "irrational" by those who wish to constrict the range of consumers' choices in the market place.

⁴In a survey of finance companies, referred to as Consumer Finance Companies: CRC 1979 Creditors Survey [14], credit managers indicated that an applicant rejected by their finance company would most likely go to other finance companies or do without the loan.

⁵In his study in Maine, Benston [2, p.37] found that almost half of finance company customers were able to find loans from other sources when most finance companies left that state after the imposition of the 36-month limitation on loan maturities. The greatest proportion (39.8 percent) shifted their debt to another finance company, banks provided loans to 32.9 percent, 20.8 percent borrowed from a credit union, and the balance of 6.5 percent borrowed from other sources. See also [5].

⁶Analysis revealed that 41 percent of finance company borrowers had a loan from both a finance company and a bank. Only 11 percent of bank customers had loans from both a bank and a finance company.

APPENDIX A

VARIABLE DEFINITION

Assdum	= 1 if Total Finance Assets was not ascertained. Total Finance Assets was calculated as the sum of the respondent's dollar holdings of U.S. Government Savings Bonds, other Federal Government Bonds, state or municipal bonds, corporate bonds, common or preferred stocks, mutual funds, stock in an investment club, certificates of deposit, savings accounts, and checking accounts.
Pmtinc	= is the sum of total regular monthly payments relative to monthly income. Total monthly payments is defined as the sum of rental payments, mortgage payments (first or second), payments for additions or repairs to the home, car payments, car lease payments, monthly payments for purchases of other durables, payments for recreation or hobby items, and other regular monthly payments on debt.
Intrnk 0	= 1 if respondent did not rank interest rate as either the first, second, or third most important thing if the respondent was going to use credit to purchase a car.
Pmtrnk 3	= 1 if respondent ranked size of monthly payment as the third most important thing if the respondent was going to use credit to purchase a car.
ED 2	= 1 if respondent had 8 grades or less of education plus non-academic training.
ED 6	= 1 if respondent had a high school diploma plus non-academic training.
ED 8	= 1 if respondent had a degree from a junior or community college (AA degree)
ED 9	= 1 if respondent had a Bachelor's degree or 17 + years of education but no advanced degree.
Ownrnt 3	= 1 if respondent rented his or her living quarters.
Race 2	= 1 if respondent was of the black race but not Hispanic.
Race 3	= 1 if respondent was Hispanic.
Chkacct	= 1 if respondent had a checking account at a bank.
Lnthres	= number of years respondent had resided at the current residence.
Age 44	= 1 if respondent was between the ages of 35 and 44.

Appendix A (continued)

Mincome = monthly family income
Tassets = Total financial assets
Sex = 1 if respondent was female.
NOHH = number in respondent's household.

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